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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,200

07/15/2005

Toshihiro Ito

1422-0683PUS1

3457

2292 7590 06/17/2009  
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EXAMINER

HANRAHAN, JOSEPH M.J.

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

06/17/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/542,200	<b>Applicant(s)</b> ITO ET AL.	
	<b>Examiner</b> JOSEPH M.J. HANRAHAN	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1-3, 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. In claims 1-3, the term “the iron salt” is used in the last line of the claim. In Claims 1 and 3 it appears the term refers to an emulsifying agent-coated iron salt. In Claim 2 it appears the term refers to an iron salt without a coating. As a result, the term “the iron salt” has inconsistent meanings throughout the claims. For the purposes of examination “the iron salt” has been interpreted to refer to an emulsifying agent-coated iron salt in Claims 1 and 3. With respect to claim 2, “the iron salt” has been interpreted to refer to an uncoated iron salt.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**7. Claim 1-3, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misaki (US Pat. No. 4765996) in view of Kwak (US Pat. No. 6402997).**

8. Referring to Claims 1 and 7, Misaki teaches rice or barley (column 1, lines. 7-8) coated with vitamins (column 2, lines. 43-45) and an iron salt (column 9, line 47) that have further been coated with an emulsifying agent (column 9, line 49). Misaki also teaches vitamin and mineral enriched rice that has been coated (column 1, lines 54-57)

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with hydrogenated oil (column 2, lines 56-57) and glycerol fatty acid esters (column 2, line 65).

9. Misaki, however, does not teach that the iron salt is coated with an emulsifying agent. Kwok teaches an emulsifier- coated iron salt composition for use in foods (col. 3, lines 15-20). Kwok further teaches that the iron salt may be coated with polyglycerin monostearate which is an emulsifying agent and equivalent to the glycerol fatty acid ester of Claim 7 (col. 3, lines 21-22). It would have been obvious to a person of ordinary skill in the art at the time of invention to have substituted the iron salt taught in Misaki with the emulsifier coated iron salt taught in Kwok as Kwok teaches that it is known in the food art to microencapsulate iron and apply it to foods (col. 1, line 66 – col. 2, line 1). Since Kwok teaches that it is known to incorporate microencapsulated iron salts into foods generally, the person of ordinary skill in the art would not have been limited by the specific applications taught in Kwok. Furthermore, a person of ordinary skill in the art would have been motivated to make the substitution since encapsulating iron has the benefit of increasing the absorption efficiency of iron in the body (Table 9, col. 8, lines 39-48).

10. Misaki also does not teach that the iron salt has diameter of 2 microns or less. However, the encapsulated iron salt of Kwok has a particle size of 2-5 microns (col. 3, line 55). When the claimed range overlaps the range cited in a reference, a prima facie case of obviousness exists. Therefore, it would have been obvious to a person of ordinary skill in the art to have selected a iron salt with a diameter of 2 microns or less given the teaching of Kwok. Furthermore, a person of ordinary skill in the art at the time

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of invention would have been further motivated to substitute the encapsulated iron salt of Kwok for the iron salt in Misaki because the particle size of 2-5 microns would allow for better incorporation of the iron salt into foods and minimize any off-flavors (Kwok col. 2, lines 1-19).

11. Referring to Claim 2, Misaki teaches rice or barley (column 1, lines. 7-8) coated with an iron salt (column 9, line 47), hydrogenated oil (, column 2, lines 56-57) and glycerol fatty acid esters (column 2, line 65).

12. Misaki also does not teach that the iron salt has diameter of 2 microns or less. However, the encapsulated iron salt of Kwok has a particle size of 2-5 microns (col. 3, line 55) that includes an emulsifier coating (the unencapsulated iron salt would have an even smaller diameter). A person of ordinary skill in the art at the time of invention would have been motivated to substitute the iron salt of Kwok for the iron salt in Misaki because the particle size of 2-5 microns would allow for better incorporation of the iron salt into foods and minimize any off-flavors (Kwok col. 2, lines 1-19). Therefore, it would have been obvious to a person of ordinary skill in the art to have selected an iron salt with a diameter of 2 microns or less given the teaching of Kwok. Furthermore, when the claimed range overlaps the range cited in a reference, a prima facie case of obviousness exists.

13. Referring to Claims 3 and 8, Misaki teaches rice or barley (column 1, lines. 7-8) coated with vitamins (column 2, lines. 43-45) and an iron salt (column 9, line 47) that have further been coated with an emulsifying agent (column 9, line 49). Misaki also

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teaches rice that has been coated with hydrogenated oil (column 2, lines 56-57) and glycerol fatty acid esters (column 2, line 65).

14. Misaki, however, does not teach that the iron salt is coated with an emulsifying agent. Kwok teaches an emulsifier- coated iron salt composition for use in foods (col. 3, lines 15-20). Kwok further teaches that the iron salt may be coated with polyglycerin monostearate which is an emulsifying agent and equivalent to the glycerol fatty acid ester of Claim 8 (col. 3, lines 21-22). It would have been obvious to a person of ordinary skill in the art at the time of invention to have substituted the iron salt taught in Misaki with the emulsifier coated iron salt taught in Kwok as Kwok teaches that it is known in the food art to microencapsulate iron and apply it to foods (col. 1, line 66 – col. 2, line 1). Since Kwok teaches that it is known to incorporate microencapsulated iron salts into foods generally, the person of ordinary skill in the art would not have been limited by the specific applications taught in Kwok. Furthermore, a person of ordinary skill in the art would have been motivated to make the substitution since encapsulating iron has the benefit of increasing the absorption efficiency of iron in the body (Table 9, col. 8, lines 39-48).

15. Misaki also does not teach that the iron salt has diameter of 2 microns or less. However, the encapsulated iron salt of Kwok has a particle size of 2-5 microns (col. 3, line 55). When the claimed range overlaps the range cited in a reference, a prima facie case of obviousness exists. Therefore, it would have been obvious to a person of ordinary skill in the art to have selected an iron salt with a diameter of 2 microns or less given the teaching of Kwok. Furthermore, a person of ordinary skill in the art at the time

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of invention would have been further motivated to substitute the encapsulated iron salt of Kwok for the iron salt in Misaki because the particle size of 2-5 microns would allow for better incorporation of the iron salt into foods and minimize any off-flavors (Kwok col. 2, lines 1-19).

### ***Response to Arguments***

16. Applicant's arguments, filed 5/21/09, with respect to the rejection(s) of claim(s) 1-3, 7, and 8 under 35 USC 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejections has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of examiner's reconsideration of his interpretation of the claims.

17. Applicants argue that enriched rice or barley employing an emulsifying agent-coated iron salt composition with a particle diameter of 2 microns or less is a feature that imparts patentability.

18. The examiner disagrees. With regard to the previous action, the examiner no longer maintains his previous position that using an emulsifying agent-coated iron salt does not render a different end product from the product disclosed in Misaki. The affidavit provided by applicants demonstrated that they are different. As a result, the examiner has withdrawn the 35 USC 102(b) rejections over Misaki. However, the examiner does not feel that applicants' invention, as claimed, is patentable. The rationale for this position is given above in the rejection under 35 USC 103(a).



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19. With respect to applicants' 37 CFR 1.132 Affidavit, applicants' claims filed 12/8/2008 and 5/21/2009 recite rice or barley that are coated with a variety of compositions. However, applicants' affidavit focuses on residual ratios of minerals and vitamins, percentage of vitamins and minerals remaining after washing, and residual ratio after one month of storage. The various tests are essentially processes and the values presented by applicants' in Tables 1-3 reflect the results of those processes. However, applicants' claims are directed to products and not processes. The values presented tables 1-3, which stem from the aforementioned processes, are not reflected in the claims. Therefore, as submitted, applicants' evidence is not commensurate with applicants' claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH M.J. HANRAHAN whose telephone number is (571) 270-7060. The examiner can normally be reached on M-F from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSEPH M.J. HANRAHAN/  
Examiner, Art Unit 1794

/JENNIFER MCNEIL/  
Supervisory Patent Examiner, Art Unit 1794